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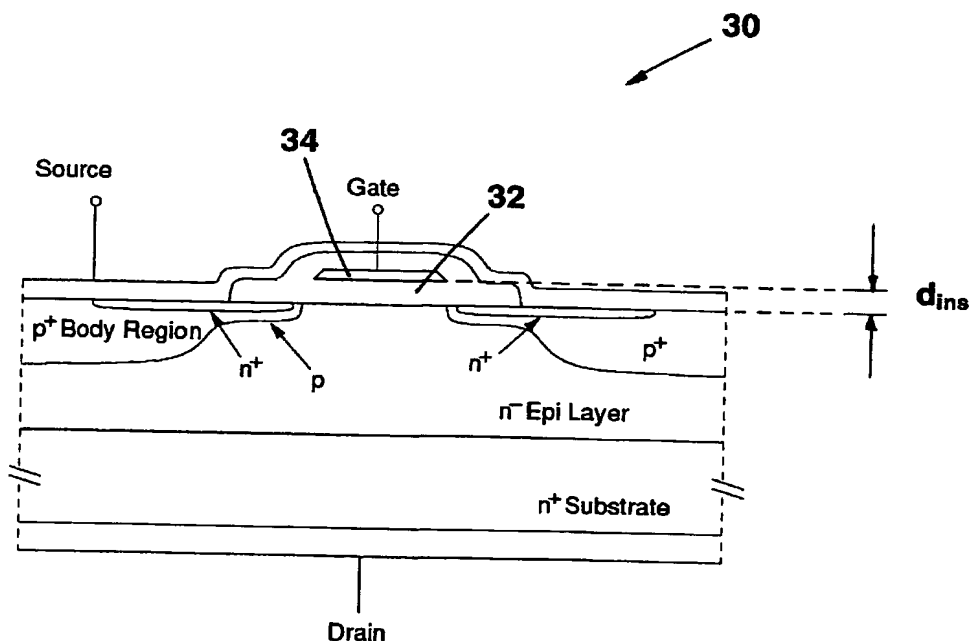
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[Continued on next page]

(54) Title: FAST SWITCHING POWER INSULATED GATE SEMICONDUCTOR DEVICE



(57) Abstract: An insulated gate semiconductor device (30) includes a gate (34), a source terminal, a drain terminal and a variable input capacitance at the gate. A ratio between the input capacitance (C_{fiss}) when the device is on and the input capacitance C_{iiss} when the device is off is less than two and preferably substantially equal to one. This is achieved in one embodiment of the invention by an insulation layer (32) at the gate having an effective thickness d_{ins} than a minimum thickness.

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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H01L H03K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, INSPEC, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 02/13257 A (TIHANYL JENOE ; HIRLER FRANZ (DE); WERNER WOLFGANG (DE); INFINEON TECH) 14 February 2002 (2002-02-14) page 4, line 5 - line 12 page 15, line 1 - line 28; figure 5	1-8,10
X	EP 1 096 573 A (INTERSIL CORP) 2 May 2001 (2001-05-02) the whole document	1-4,6
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X	DE 199 05 421 A (SEMIKRON ELEKTRONIK GMBH) 24 August 2000 (2000-08-24) abstract; figures 3a-5 page 15, line 1 - line 28; figure 5	1-4,6
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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